NAL SEARCH REPORT

ernational Application No.

Pur JS2004/007927 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B01D46/52 B01D B01D25/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 B01D Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched. Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with Indication, where appropriate, of the relevant passages Relevant to claim No. X US 2002/096247 A1 (WYDEVEN ROBERT M) 1-27 25 July 2002 (2002-07-25) page 5, paragraph 83-86; figure 4a Α US 6 190 432 B1 (FINNERTY CAROLYN J ET AL) 20 February 2001 (2001-02-20) cited in the application the whole document EP 0 630 672 A (NIPPON DENSO CO) Α 28 December 1994 (1994-12-28) the whole document A WO 97/40918 A (DONALDSON CO INC) 6 November 1997 (1997-11-06) the whole document Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention *E* earlier document but published on or after the international *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docudocument referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 14 September 2004 21/09/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Gruber, M Fax: (+31-70) 340-3016

INTERNA JNAL SEARCH REPORT

)ternational Application No PC+7 US2004/007927

Category °	etion) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
Calegory	Citation of document, with indication, where appropriate, of the resevant passages		netevarit to Califf No.
A	US 6 416 605 B1 (GOLDEN PATRICK) 9 July 2002 (2002-07-09) the whole document		
		-	
			·
	·		
		·	
			·
			·
			•
			•
			٠ ,,
	·		·

INTERNAT HAL SEARCH REPORT

formation on patent family members

nal Application No

Patent document cited in search report	ļ	Publication date		Patent family member(s)	Publication date
US 2002096247	' A1	25-07-2002	NONE		
US 6190432	B1	20-02-2001	AT	254949 T	15-12-2003
			ΑÜ	3240800 A	
			BR	0008458 A	14-09-2000 29-01-2002
			CA	2360445 A1	31~08-2000
			CN	1341035 T	20-03-2002
			DE	60006789 D1	08-01-2004
		•	EP	1159052 A1	05-12-2001
			ĒΡ	1374963 A2	02-01-2004
			ĒP	1410832 A1	21-04-2004
			ĪD	30248 A	15-11-2001
			JΡ	2002542417 T	10-12-2002
			WO.	0050149 A1	31-08-2000
			US	2002100262 A1	01-08-2000
			US	2003182909 A1	02-10-2003
			US	6350291 B1	26-02-2002
			ZA	200106519 A	23-08-2002
EP 0630672	A	. 20 12 1004			
LI 0030072	A	28-12-1994	JP	3362453 B2	07-01-2003
			JP	6327910 A	29-11-1994
		•	AU	669978 B2	27-06-1996
			AU	6321294 A	24-11-1994
			CN	1100776 A ,B	29-03-1995
			DE	69427844 D1	06-09-2001
			DE	69427844 T2	15-11-2001
			EP	0630672 A1	28-12-1994
			KR US	224575 B1 5562825 A	15-10-1999
					08-10-1996
WO 9740918	Α	06-11-1997	AT	243062 T	15-07-2003
			ΑU	722679 B2	10-08-2000
			AU	2926697 A	19-11-1997
			BR	9709744 A	10-08-1999
			CA	2252522 A1	06-11-1997
			CN	1220617 A ,B	23-06-1999
			DE	69722933 D1	24~07~2003
			DE EP	69722933 T2	13-05-2004
			ES	0904143 A1	31-03-1999
			HK	2205220 T3	01-05-2004
				1020265 A1	16-08-2002
			PL	2000509324 T 329557 A1	25-07-2000
			MO	9740918 A1	29-03-1999
				2003121845 A1	06-11-1997
			ZA	9703639 A	03-07-2003
				9/03039 A	26-10-1998
US 6416605	B1	09-07-2002	AU WO	1661801 A 0137963 A1	04-06-2001 31-05-2001